

ABSTRACT OF THE DISCLOSURE

A non-woven mat useful for a wide variety of purposes, including forming reinforced resin products, is produced in a manner having different specific uses of, and advantages over, conventional chopped strand mats and conventional glass tissue. The mat is

5 preferably made by the foam process (but may be made by the liquid process), and at speeds well in excess of 60 m./min., and has a substantially uniform construction even when low density (e.g. 100 g/m² or less). At least 20% (preferably at least 85%) of the fibers are in fiber bundles with between 5-450 fibers/bundle. The fibers (typically at least 85%) have a length between 5-100 mm, preferably 7-50 mm, substantially the same as the length of the fiber bundle they are in. The fibers are preferably held in the bundles by substantially non-water soluble sizing, such as epoxy resin or PVOH. The fibers in the bundles typically have diameters of approximately 7-500 microns, preferably about 7-35 microns. The bundles may comprise at least 10% reinforcing fibers, such as glass, aramid or acrylic.

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